ENGLISH

DEUTSCH

MITSUBISHI

DIGITAL RECORDER
RS-232 PROTOCOL

MODEL

DX-TL1600EM

CE

■ RS-232C settings

This connection can be used for remote control and recording supplementary information when the main unit is connected to a PC.

♦ Transmission speed

Example: Transmission speed is set for 4800 bps.

1. Press the SET UP button to display the <MENU SETTING> menu.

2. Turn the JOG dial to move the cursor to COMMUNICATION SETTING then turn the SHUTTLE ring to the right.

• The <COMMUNICATION SETTING> menu will appear.

```
<COMMUNICATION SETTING>
▸RS-232C SETTING
 TCP/IP SETTING
```

3. Check that the cursor is next to RS-232C SETTING and turn the SHUTTLE ring to the right.

• The <RS-232C SETTING> menu will appear.

```
<RS-232C SETTING>
▸TRANSMISSION RATE  1200
 DATA BIT LENGTH    8BIT
 PARITY BIT         NONE
 STOP BIT LENGTH    1BIT
 DELIMITER            CR
```

4. Check that the cursor is next to TRANSMISSION RATE and turn the SHUTTLE ring to the right to flash the sub-item.

```
<RS-232C SETTING>
▸TRANSMISSION RATE  1200
 DATA BIT LENGTH    8BIT
 PARITY BIT         NONE
 STOP BIT LENGTH    1BIT
 DELIMITER            CR
```

5. Turn the JOG dial to select "4800" and turn the SHUTTLE ring to the right to finish setting.

```
<RS-232C SETTING>
▸TRANSMISSION RATE  4800
 DATA BIT LENGTH    8BIT
 PARITY BIT         NONE
 STOP BIT LENGTH    1BIT
 DELIMITER            CR
```

6. Press the SET UP button.

• The <RS-232C SETTING> menu will disappear.

■ TCP / IP settings

The IP address, subnet mask setting, and MAC address used to specify the connected recorder can be referred to here (refer to page 8).

➡ Press the COMMUNICATION button on the unit's front face to activate the TCP/IP communication function.

1. Press the SET UP button to display the <MENU SETTING> menu.

2. Turn the JOG dial to move the cursor to COMMUNICATION SETTING then turn the SHUTTLE ring to the right.

• The <COMMUNICATION SETTING> menu will appear.

```
<COMMUNICATION SETTING>
▸RS-232C SETTING
 TCP/IP SETTING
```

3. Turn the JOG dial to move the cursor to TCP / IP SETTING then turn the SHUTTLE ring to the right.

• The <TCP / IP SETTING> menu will appear.

```
<TCP/IP SETTING>


▸SELF IP ADDRESS
        000.000.000.000
 SUBNET MASK
        000.000.000.000
<MAC ADDRESS>
       08-00-70-2E-3F-FF
```

4. Check that the cursor is next to SELF IP ADDRESS and turn the SHUTTLE ring to the right to flash the sub-item .

```
<TCP/IP SETTING>


▸SELF IP ADDRESS
        000.000.000.000
 SUBNET MASK
        000.000.000.000
<MAC ADDRESS>
       08-00-70-2E-3F-FF
```

5. Turn the JOG dial to input the SELF IP ADDRESS and turn the SHUTTLE ring to the right to finish setting.

```
<TCP/IP SETTING>


▸SELF IP ADDRESS
        192.168.001.100
 SUBNET MASK
        255.255.255.000
<MAC ADDRESS>
       08-00-70-2E-3F-FF
```

6. Press the SET UP button or turn the SHUTTLE ring to the left.

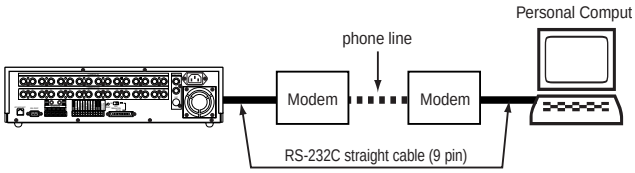
• The <TCP/IP SETTING> menu will disappear.

■ Connecting with a personal computer

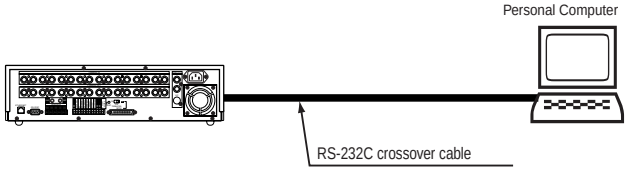
This connection can be used for remote control and recording supplementary information when the main unit is connected to a PC.

➡ Please use RS-232C Straight cable (9pin) to connect a modem with this unit. The setting of CTS should be set to "HIGH" or "ON". Please refer to the instruction manual of a modem for details about connection.

♦ Connection via modem

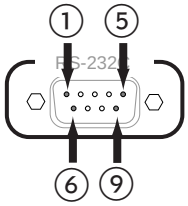


♦ Direct connection



➡ Please use RS-232C crossover cable (9pin) to connect a modem with a personal computer. RS - 232C Crossover cable differs depending on the personal computer.

♦ RS-232C terminal

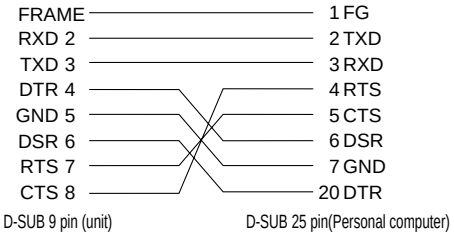


Pin NO.	Letters	Transmition Contents	Pin NO.	Letters	Transmition Contents
②	RXD	Receiving Data	⑥	DSR	Data Set Ready
③	TXD	Transmission Data	⑦	RTS	Transmission Requirement
④	DTR	Data Terminal Ready			
⑤	GND	Signal Ground	⑧	CTS	Transmission Clear

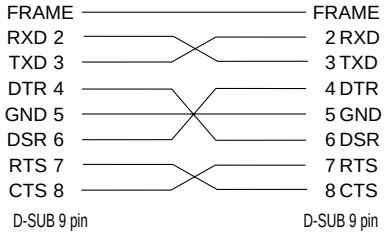
♦ RS-232C cable

Please use the following RS-232C Crossover cable to connect your personal computer to the Unit.

1) When RS-232C terminal of personal computer is D-SUB 25 pin



2) When Pesonal cpmputers RS-232C terminal is D-SUB 9 pin



♦ Setting the communicating mode

The settings can be made on RS-232C SETTING of the <REAR TERMINAL> menu. Set the Unit and the modem or a personal computer with same settings. Please refer to the diagram for possible setting rate.

Synchronization	Name on Menu	Asynchronous
① Transmission rate at the data received/ sent	TRANSMISSION RATE	1200/2400/4800/ 9600
② Data bit length	DATA BIT LENGTH	8 BIT/7 BIT
③ Parity bit setting	PARITY BIT	NONE/ODD/EVEN
④ Stop bit length	STOP BIT	1 BIT/2 BIT
⑤ Line feed setting	DELIMITER	CR/CR•LF

Set other functions on the personal computer as shown below.

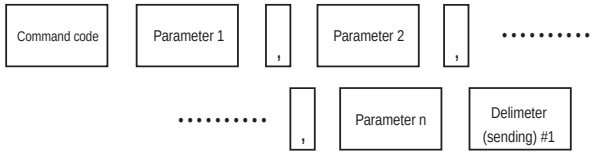
Synchronization	Name on Menu
① X control	Not available
② S parameter	Not available
③ CS-RS hamd-shake	Available

➡ Please note that the RS-232C interface (located on the back of the unit) does not function while the unit is in communication mode.

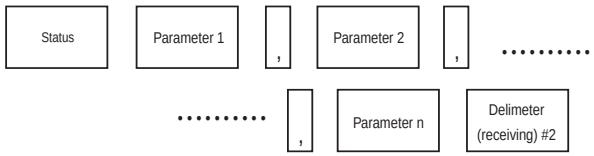
■ Command code and status

Operation and setting of this unit by a personal computer is executed by command codes and error codes.

1) Command : an order from a personal computer to the unit



2) Command : a reply from the unit (indicated on a personal computer)



#1: If you set the DELIMITER setting to "CR" on the RS-232C setting menu, input a Carrige return code (0DH).
If you set the DELIMITER setting to "CR • LF" on the RS-232C setting menu, input a carrige return code (0DH) and a line ****code (0AH).

#2: If you set the DELIMITER setting to "CR" on the RS-232C setting menu, output a Carrige return code (0DH).
If you set the DELIMITER setting to "CR • LF" on the RS-232C setting menu, output a carrige return code (0DH) and a line ****code (0AH).

Make sure to send commands in an interval of 0.1 second.

♦ Example of Command operation

Example 1) Turn the Unit on.(when DELIMITER is set to "CR" on the RS-232C setting menu)

Command from personal computer	Replied status code from uint to a personal computer	Meaning
PW1 CR		Sending a command to turn the Unit on.
	RC CR	The unit received a command.
	EX CR	The unit received a command and executed.

♦ Details of the numbers

#1 : When the setting of DELIMITER on RS-232C setting display is set to CR, carriage return code (0DH) will be input. If the setting is CR•LF, carriage return code (0DH) and line feed code (0AH) will be input.

#2 : When the setting of DELIMITER on RS-232C setting display is set to CR, carriage return code (0DH) will be output. If the setting is CR•LF, carriage return code (0DH) and line feed code (0AH) will be output.

✱ : Indicates one number or a character.

	Commands	Functions	Status, when normal execute
BASIC FUNCTIONS	IA?	Acquire information on MAC ADDRESS	RC [#2] IA✱✱,✱✱,✱✱,✱✱,✱✱,✱✱ [#2]
	VC? [#1]	Acquire information on model identification code	RC [#2] DX1601 [#2]
	PW✱ [#1]	POWER ON/OFF ✱ : 0 ~ 1 0 : OFF 1 : ON	RC [#2] EX [#2]
	SP [#1]	STOP	RC [#2] EX [#2]
	PB [#1]	PLAYBACK	RC [#2] EX [#2]
	RP [#1]	REVERSE PLAYBACK	RC [#2] EX [#2]
	RC [#1]	RECORDING	RC [#2] EX [#2]
	PU✱ [#1]	PAUSE SETTING/RELEASE ✱ : 0 ~ 1 0 : ON 1 : OFF	RC [#2] EX [#2]
	FA [#1]	Forward advance	RC [#2] EX [#2]
	RA [#1]	Reverse advance	RC [#2] EX [#2]
	PF✱ [#1]	Forward Speed search ✱ : Playback speed(1~ 4) [Playback] 1 : Skip 3 fields 2,3 : Skip 5 fields 4 : Skip 1 MByte [STOP] 1 ~ 4 : Skip 2 MByte	RC [#2] EX [#2]
	PR✱ [#1]	Reverse Speed search ✱ : Playback speed (1 ~ 4) (Refer above for settings)	RC [#2] EX [#2]
	RW✱ [#1]	Rewind DDS cassette ✱ : 0 ~ 1 0 : ID4 1 : ID5	RC [#2] EX [#2]
	TR✱ [#1]	Timer REC ON/OFF ✱ : 0 ~ 1 0 : OFF 1 : ON	RC [#2] EX [#2] (during POWER ON only)
	AV✱ [#1]	ARCHIVE ON/OFF ✱ : 0 ~ 1 0 : OFF 1 : ON	RC [#2] EX [#2]
	LO✱ [#1]	LOCK ON/OFF or PASSWORD LOCK ON ✱ : 0 ~ 1 0 : LOCK OFF 1 : LOCK ON or PASSWORD LOCK ON	RC [#2] EX [#2] (ER08 [#2] : PASSWORD input during LOCK OFF) (ER17 [#2] is output if LO0 [#1] is input while PASSWORD LOCK is set to ON.)
	LM [#1]	Acquire information on status of LOCK or PASSWORD LOCK function	RC [#2] LM✱ [#2] ✱ : 0 ~ 1 0 : OFF 1 : ON
	PO? [#1]	Acquire information on whether password has been registered for PASSWORD LOCK function	RC [#2] PO✱ [#2] ✱ : 0 ~ 1 0 : No password registered 1 : Password registered
	PO✱(1),✱(2),✱(3),✱(4) [#1]	PASSWORD LOCK OFF ✱(1),✱(2),✱(3),✱(4) : Password (0 ~ 9)	RC [#2] EX [#2] (ER16 [#2] : PASSWORD ERROR)
	MB✱✱✱ [#1]	Switch over playback interval to ✱✱✱ : (001 ~ 008) 001 : 25F 002 : 12.5F 003 : 8.33F 004 : 6.25F 005 : 5F 006 : 4.17F 007 : 2.5F 008 : 1F	RC [#2] EX [#2]
	MB? [#1]	Acquire information on playback interval	RC [#2] MB✱✱✱ [#2] ✱✱✱ : (001 ~ 008) (Same as playback interval shown above)
	FD? [#1]	Acquire information on time and date recorded on data	RC [#2] FD✱✱ (1),✱✱(2),✱✱(3),✱✱(4),✱✱(5),✱✱(6) [#2] ✱✱(1) : Day ✱✱(2) : Month ✱✱(3) : Year ✱✱(4) : Hour ✱✱(5) : Minute ✱✱(6) : Second
	PS✱✱(1),✱✱(2) [#1]	Move date and present time display ✱✱(1) : (Horizontal) (Display mode 1, Character size large : 00 ~ 28) (Display mode 1, Character size small : 00 ~ 28) (Display mode 2 or 3, Character size large : 00 ~ 28) (Display mode 2 or 3, Character size small : 00 ~ 28) ✱✱(2) : (Vertical) (Display mode 1, Character size large : 03 ~ 26) (Display mode 1, Character size small : 03 ~ 26) (Display mode 2 or 3, Character size large : 01 ~ 26) (Display mode 2 or 3, Character size small : 01 ~ 26)	RC [#2] EX [#2]

	Commands	Functions	Status, when normal execute
BASIC FUNCTIONS	LC #1	Acquire information on current position of date and present time display	RC #2 LT★★(1),★★(2) #2 (Same as ★★(1) and ★★(2) of Move date and present time display)
	DP00 #1	Exits MENU display	RC #2 EX #2
	ST0 #1	Stop the selected item on the menu to flash	RC #2 EX #2
	PI #1	Acquire information on currently displayed menu and whether the setting is proceeding	RC #2 ON★★(1),★(2) #2 ★★(1) : 00 ~ 69 00 : current date and time display 01 : NORMAL REC SETTING 02 : TIME DATE DISPLAY 03 : TIMER PROGRAM M-DET APPLICATION 04 :MPX DISPLAY 06 : DIFINE GROUP 07 : MENU SETTING 08 : TIME DATE ADJUST 09 : COMMUNICATION SETTING 10 : INITIAL SETUP 11 : SERVICE 12 : POWER FAILURE 13 : REAR TERMINAL 14 : RS232C SETTING 15 : DATE CLEAR SELECTION 16 : CLOCK LOCATION 17 : CAMERA TITLE 19 : SCREEN SW PATTERN 20 : SPLIT16 SCREEN SETTING 21 : SPLIT9 SCREEN SETTING 22 : SPLIT4 SCREEN SETTING 24 : SPECIAL FUNCTION MENU 25 : CALL OUT 26 : VER.UP SELECTION 29 : A-REC/M-DET SETTING 30 : DEFINE ALARM GROUP 31 : LANGUAGE SELECTION 32 : INFORMATION 36 : CONNECTED SCSI DEVICE 37 : RECORDED PERIOD 40 : MOTION 41 : SET DETECTION MASK 42 : TEST MODE 43 : TCP/IP SETTING 49 : TIME DATE SEARCH SEARCHING 50 : INDEX SEARCH SEARCHING 51 : ALARM LIST SEARCH SEARCHING 52 : SKIP SEARCH SEARCHING 53 : COPY SELECTION 54 : PASSWORD SETTING 55 : PASSWORD LOCK 58 : TIMER PROGRAM P1 59 : TIMER PROGRAM P2 60 : TIMER PROGRAM P3 64 : SEARCH SELECTION 65 : TIME DATE SEARCH 66 : INDEX SEARCH 67 : SKIP SEARCH 68 : ALARM LIST SEARCH 69 : JUMP TO START POINT ★(2) : 0 ~ 1 0 : define 1 : menu is flashing
	CP? #1	Acquire information on the used memory of device selected in CAPACITY REMAIN	RC #2 CP★(1),★★★(2) #2 ★(1) : selection of used memory (0 ~ 2) 0 : HDD 1 : ARCHIVE 2 : OFF ★★★(2) : used memory (001 ~ 100) (%) (FFF is shown when used memory is less than 1% or WRNG is set to OFF.)
	PA? #1	Acquire information whether time and date information recorded in playback picture is alarm recording	RC #2 PA★ #2 ★ : 0 ~ 1 0 : without alarm 1 : with alarm
	PD★ #1	PB DEVICE setting ★ : 0 ~ 2 0 : HDD 1 : ARCHIVE 2 : COPY	RC #2 EX #2
	PD? #1	Acquire information on PB DEVICE setting	RC #2 PD★ #2 ★ : 0 ~ 2 0 : HDD 1 : ARCHIVE 2 : COPY
	EJ★ #1	Ejecting media out of DEVICE ★ : 1 ~ 2 1 : ARCHIVE 2 : COPY	RC #2 EX #2

	Commands	Functions	Status, when normal execute
BASIC FUNCTIONS	CF★★ #1	The command code appointed the camera filter search when execute the search (Use together the command code when execute the search) ★★ : 00 ~ 16 (Camera number) 00 : ALL 01 ~ 16 : Camera CH(1-16)	RC #2 EX #2
	CF? #1	Acquire information on camera filter when execute the search	RC #2 CF★★ #2 ★★ : 00 ~ 16 (Camera number) 00 : ALL 01 ~ 16 : Camera CH(1-16)
	SA? #1	Acquire information on camera number that during alarm recording	RC #2 SA★(1),★(2),★(3),★(4),★(5),★(6),★(7),★(8),★(9),★(10),★(11),★(12),★(13),★(14),★(15),★(16) #2 ★1) ~ ★(16) (the corresponding camera number) : 0 ~ 1 0 : No alarm recording 1 : During alarm recording
DISPLAY MENU	DM★ #1	DISPLAY MODE setting ★ : 1 ~ 6	RC #2 EX #2
	DM? #1	Acquire information on DISPLAY MODE setting	RC #2 DM★ #2 ★ : 1 ~ 6
	CH★ #1	Character size setting present time and display ★ : 0 ~ 1 0 : SMALL 1 : LARGE	RC #2 EX #2
	FS1 #1	Acquire information on character size setting for present time and date display	RC #2 CZ★ #2 ★ : 0 ~ 1 0 : SMALL 1 : LARGE
MPX FUNCTIONS	CU★ #1	CAMERA USAGE setting ★ : 0 ~ 2 0 : A 1 : B 2 : C	RC #2 EX #2
	CU? #1	Acquire information on CAMERA USAGE setting	RC #2 CU★ #2 ★ : 0 ~ 2 0 : A 1 : B 2 : C
	SG★ #1	IMAGE QLTY setting ★ : 0 ~ 1 0 : HIGH 1 : NO FLICKER	RC #2 EX #2
	SG? #1	Acquire information on IMAGE QLTY setting	RC #2 SG★ #2 ★ : 0 ~ 1 0 : HIGH 1 : NO FLICKER
	CS★(1),★(2),★(3),★(4),★(5),★(6),★(7),★(8),★(9),★(10),★(11),★(12),★(13),★(14),★(15),★(16),★(17) #1	DEFINE GROUP setting ★(1) : Pattern selection (0 ~ 2) 0 : A 1 : B 2 : C ★(2) ~ ★(10) : Status of CH1 to CH16 (0 ~ 5) 0 : invalid 1 ~ 5 : valid (priority number)	RC #2 EX #2
	CS★(1)? #1	Acquire information on DEFINE GROUP setting ★(1) : Pattern selection (0 ~ 2) 0 : A 1 : B 2 : C	RC #2 CS★(1),★(2),★(3),★(4),★(5),★(6),★(7),★(8),★(9),★(10),★(11),★(12),★(13),★(14),★(15),★(16),★(17) #2 (Same as DEFINE GROUP setting shown above)
	CT★★(1),★★(2), Text data #1	CH. TITLE setting ★★(1) : Camera CH (01 ~ 16) ★★(2) : Character numbers (Within 16 characters.)	RC #2 EX #2
	CT★★(1)? #1	Acquire information on CH. TITLE setting ★★(1) : Camera CH (01 ~ 16)	RC #2 CT★★(1),★★(2),Text data #2 ★★(1) : Camera CH (01 ~ 16) ★★(2) : Character numbers
	SL★(1),★★(2),★★(3),★★(4),★★(5),★★(6),★★(7),★★(8),★★(9),★★(10),★★(11),★★(12),★★(13),★★(14),★★(15),★★(16),★★(17) #1 Split16 ★★(2) ★★(3) ★★(4) ★★(5) ★★(6) ★★(7) ★★(8) ★★(9) ★★(10)★★(11)★★(12)★★(13) ★★(14)★★(15)★★(16)★★(17) Split9 ★★(2)★★(3)★★(4) ★★(5)★★(6)★★(7) ★★(8)★★(9)★★(10) Split4 ★★(2)★★(3) ★★(4)★★(5)	SPLIT SCREEN SETTING ★(1) : Screen setting (0 ~ 6) 0 : SPLIT16 1 : SPLIT9a 2 : SPLIT9b 3 : SPLIT4a 4 : SPLIT4b 5 : SPLIT4c 6 : SPLIT4d ★★(2) ~ ★★(17) : Camera CH position (01 ~ 16) (When ★(1) is set to 0, input data to ★★(2) ~ ★★(17). When ★(1) is set to 1 or 2, input data to ★★(2) ~ ★★(10). When ★(1) is set to 3, 4 ,5 or 6, input data to ★★(2) ~ ★★(5).)	RC #2 EX #2
	SL★(1)? #1	Acquire information on SPLIT SCREEN SETTING ★(1) : Screen setting (0 ~ 6) 0 : SPLIT16 1 : SPLIT9a 2 : SPLIT9b 3 : SPLIT4a 4 : SPLIT4b 5 : SPLIT4c 6 : SPLIT4d	RC #2 SL★(1),★★(2),★★(3),★★(4),★★(5),★★(6),★★(7),★★(8),★★(9),★★(10),★★(11),★★(12),★★(13),★★(14),★★(15),★★(16),★★(17) #2 (Same as SPLIT SCREEN SETTING shown above.) (When ★(1) is set to 0, output data to ★★(2) ~ ★★(17). When ★(1) is set to 1 or 2, output data to ★★(2) ~ ★★(10). When ★(1) is set to 3, 4 ,5 or 6, output data to ★★(2) ~ ★★(5).)

	Commands	Functions	Status, when normal execute
MPX FUNCTIONS	SQ✱(1),✱✱(2),✱✱(3), ✱✱(4),✱✱(5),✱✱(6),✱✱(7), ✱✱(8),✱✱(9),✱✱(10), ✱✱(11),✱✱(12),✱✱(13), ✱✱(14),✱✱(15),✱✱(16), ✱✱(17) #1	Displayed sequential channel setting ✱(1) : Screen setting (0 ~ 2) 0 : Single screen 1 : SPLIT4 screen 2 : SPLIT9 screen ✱✱(2) ~ ✱✱(17) : Camera CH order (01 ~ 16, 00) (00 = invalid camera) SPLIT9 ✱✱(2) : 00 ~ 01 00 : ab setting 01: a setting SPLIT4 ✱✱(2) : 00 ~ 03 00 : abcd setting 01 : abc setting 02 : ab setting 03: a setting (When SPLIT4 screen and SPLIT9 screen is selected,set ✱✱(2) only.)	RC #2 EX #2
	SM✱(1),✱✱(2),✱✱(3), ✱✱(4),✱✱(5),✱✱(6),✱✱(7), ✱✱(8),✱✱(9),✱✱(10),✱✱(11) ,✱✱(12),✱✱(13),✱✱(14), ✱✱(15),✱✱(16),✱✱(17) #1	Displayed time of sequential channel setting ✱(1) : Screen setting (0 ~ 2) 0 : Single screen 1 : SPLIT4 screen 2 : SPLIT9 screen ✱✱(2) ~ ✱✱(17) : Displayed time of each camera (01 ~ 30) (When SPLIT4 screen and SPLIT9 screen is selected, set ✱✱(2) only.)	RC #2 EX #2
	SQ✱(1)? #1	Acquire information on displayed sequential channel setting ✱(1) : Screen setting (0 ~ 2) 0 : Single screen 1 : SPLIT4 screen 2 : SPLIT9 screen	RC #2 SQ✱(1),✱✱(2),✱✱(3),✱✱(4),✱✱(5),✱✱(6),✱✱(7),✱✱(8),✱✱(9), ✱✱(10),✱✱(11),✱✱(12),✱✱(13),✱✱(14),✱✱(15),✱✱(16),✱✱(17) #2 (Same as Displayed sequential channel setting shown above.) (When SPLIT4 screen and SPLIT9 is selected, only ✱✱(2) is output.)
	SM✱(1)? #1	Acquire information on displayed time of sequential channel setting ✱(1) : Screen setting (0 ~ 2) 0 : Single screen 1 : SPLIT4 screen 2 : SPLIT9 screen	RC #2 SM✱(1),✱✱(2),✱✱(3),✱✱(4),✱✱(5),✱✱(6),✱✱(7),✱✱(8),✱✱(9) ,✱✱(10),✱✱(11),✱✱(12),✱✱(13),✱✱(14),✱✱(15),✱✱(16),✱✱(17) #2 (Same as Displayed time of sequential channel setting shown above.) (When SPLIT4 screen and SPLIT9 is selected, only ✱✱(2) is output.)
	AC✱ #1	ALARM REC CH. setting ✱ : 0 ~ 1 0 : ALL 1 : SEP	RC #2 EX #2
	AC? #1	Acquire information on ALARM REC CH. setting	RC #2 AC✱ #2 ✱ : 0 ~ 1 0 : ALL 1 : SEP
	CI✱ #1	CH. TITLE setting ✱ : 0 ~ 2 0 : TITLE 1 : CH. NO 2 : NONE	RC #2 EX #2
	CI? #1	Acquire information on CH. TITLE setting	RC #2 CI✱ #2 ✱ : 0 ~ 2 0 : TITLE 1 : CH. NO 2 : NONE
	SW✱✱ #1	Multiplexer screen switch setting ✱✱ : 00 ~ 09 , 80 ~ 88 ,90 ~ 96 00 : SPLIT16 01 : SPLIT9a 02 : SPLIT9b 03 : SPLIT4a 04 : SPLIT4b 05 : SPLIT4c 06 : SPLIT4d 07 : Single screen sequential 08 : SPLIT4 screen sequential 09 : SPLIT9 screen sequential 80 ~ 88 : CH1 ~ CH9 (Single screen display) 90 ~ 96 : CH10 ~ CH16 (Single screen display)	RC #2 EX #2
	SW? #1	Acquire information on Multiplexer screen switch setting	RC #2 SW✱✱ #2 (Same as Multiplexer screen switch setting shown above.)
TIMER PROGRAM	PG✱(1),✱(2),✱(3),✱✱(4) ,✱✱(5),✱✱(6),✱✱(7), ✱(8),✱✱✱(9) #1	Timer program setting ✱(1) : SELECTED PATTERN (1 ~ 3) 1 : P1 2 : P2 3 : P3 ✱(2) : Program number(1 ~ 8) ✱(3) : Day of the week (0 ~ 8) 0 : SUN 1 : MON 2 : TUE 3 : WED 4 : THU 5 : FRI 6 : SAT 7 : DAY 8 : SPL ✱✱(4) : Rec starting hour (00 ~ 23) ✱✱(5) : Rec starting minute (00 ~ 59) ✱✱(6) : Rec ending hour (00 ~ 23) ✱✱(7) : Rec ending minute (00 ~ 59) ✱(8) : CAMERA USAGE pattern (0 ~ 2) 0 : A 1 : B 2 : C ✱✱✱(9) : Recording interval (001 ~ 008, SKP, PWR, ARC,AEJ) 001 : 25F 002 : 12.5F 003 : 8.33F 004 : 6.25F 005 : 5F 006 : 4.17F 007 : 2.5F 008 : 1F SKP : SKIP PWR : POWER ARC : ARCHIVE AEJ : EJECT (When SKP, PWR, ARC or AEJ is selected, set ✱(8) to 0, 1, or 2.)	RC #2 EX #2

	Commands	Functions	Status, when normal execute
TIMER PROGRAM	DW✱(1),✱(2),✱(3) #1	SPECIAL DW setting ✱(1) : SELECTED PATTERN (1 ~ 3) 1 : P1 2 : P2 3 : P3 ✱(2) : Start day of the week (0 : SUN ~ 6 : SAT) ✱(3) : End day of the week (0 : SUN ~ 6 : SAT)	RC #2 EX #2
	DW?✱ #1	Acquire information on SPECIAL DW setting ✱(1) : SELECTED PATTERN (1 ~ 3) 1 : P1 2 : P2 3 : P3	RC #2 DW✱(1),✱(2),✱(3) #2 ✱(1) : SELECTED PATTERN (1 ~ 3) 1 : P1 2 : P2 3 : P3 ✱(2) : Start day of the week (0 : SUN ~ 6 : SAT) ✱(3) : End day of the week (0 : SUN ~ 6 : SAT)
	CA✱(1),✱(2) #1	Clearing timer program ✱(1) : SELECTED PATTERN (1 ~ 3) 1 : P1 2 : P2 3 : P3 ✱(2) : Program number(1 ~ 8)	RC #2 EX #2
	PM✱(1),✱(2) #1	Acquire information on timer program setting ✱(1) : SELECTED PATTERN (1 ~ 3) 1 : P1 2 : P2 3 : P3 ✱(2) : Program number(1 ~ 8)	RC #2 MP✱(1),✱(2),✱(3),✱✱(4),✱✱(5),✱✱(6),✱✱(7),✱(8), ✱✱✱(9) #2 ✱(1) : SELECTED PATTERN (1 ~ 3) 1 : P1 2 : P2 3 : P3 ✱(2) : Program number(1 ~ 8) ✱(3) : Day of the week (0 ~ 8, -) 0 : SUN 1 : MON 2 : TUE 3 : WED 4 : THU 5 : FRI 6 : SAT 7 : DAY 8 : SPL ✱✱(4) : Rec starting hour (00 ~ 23, - -) ✱✱(5) : Rec starting minute (00 ~ 59,- -) ✱✱(6) : Rec ending hour (00 ~ 23,- -) ✱✱(7) : Rec ending minute (00 ~ 59,- -) ✱(8) : CAMERA USAGE (0 ~ 2,-) 0 : A 1 : B 2 : C ✱✱✱(9) : Recording interval (001 ~ 008, SKP, PWR, ARC, AEJ, - - -) 001 : 25F 002 : 12.5F 003 : 8.33F 004 : 6.25F 005 : 5F 006 : 4.17F 007 : 2.5F 008 : 1F SKP : SKIP PWR : POWER ARC : ARCHIVE AEJ : EJECT (–, – –, – – – is output on ✱(3) ~ ✱✱✱(9) when no program is set)
	PP✱ #1	SELECTED PATTERN setting ✱ : 1 ~ 3 1 : P1 2 : P2 3 : P3	RC #2 EX #2
	PP? #1	Acquire information on SELECTED PATTERN setting	RC #2 PP✱ #2 ✱ : 1 ~ 3 1 : P1 2 : P2 3 : P3
RECORDING SET UP	MC✱✱✱ #1	REC interval setting ✱✱✱ : REC MODE (001 ~ 008) 001 : 25F 002 : 12.5F 003 : 8.33F 004 : 6.25F 005 : 5F 006 : 4.17F 007 : 2.5F 008 : 1F (During stop)	RC #2 EX #2
	MD #1	Acquire information on REC interval setting	RC #2 MD✱✱✱ #2 ✱✱✱ : REC MODE (001 ~ 008) 001 : 25F 002 : 12.5F 003 : 8.33F 004 : 6.25F 005 : 5F 006 : 4.17F 007 : 2.5F 008 : 1F
	QR✱ #1	Recording Picture Grade (IMAGE QUALITY) ✱ : 1 ~ 5 1 : BASIC 2 : STANDARD 3 : MEDIUM 4 : HIGH 5 : SUPERIOR	RC #2 EX #2
	QR? #1	Acquire information on Recording Picture Grade	RC #2 QR✱ #2 ✱ : 1 ~ 5 1 : BASIC 2 : STANDARD 3 : MEDIUM 4 : HIGH 5 : SUPERIOR
	AM✱✱✱ #1	Alarm REC interval setting ✱✱✱ : 001 ~ 008 001 : 25F 002 : 12.5F 003 : 8.33F 004 : 6.25F 005 : 5F 006 : 4.17F 007 : 2.5F 008 : 1F	RC #2 EX #2

	Commands	Functions	Status, when normal execute
RECORDING SET UP	AS1 #1	Acquire information on Alarm REC interval setting	RC #2 AM★★★ #2 ★★★ : 001 ~ 008 001 : 25F 002 : 12.5F 003 : 8.33F 004 : 6.25F 005 : 5F 006 : 4.17F 007 : 2.5F 008 : 1F
	AD★★ #1	Alarm REC duration setting ★★ : 01 ~ 11 01 : MAN 02 : 2S 03 : 5S 04 : 10S 05 : 15S 06 : 30S 07 : 45S 08 : 1M 09 : 2M 10 : 5M 11 : 10M	RC #2 EX #2
	AS0 #1	Acquire information on Alarm REC duration setting	RC #2 AP★★ #2 ★★ : 01 ~ 11 (Same as Alarm REC duration setting shown above)
	QA★ #1	Alarm Recording Picture Grade (IMAGE QUALITY) ★ : 1 ~ 5 1 : BASIC 2 : STANDARD 3 : MEDIUM 4 : HIGH 5 : SUPERIOR	RC #2 EX #2
	QA? #1	Enquiry about Alarm Recording Picture Grade setting	RC #2 QA★ #2 ★ : 1 ~ 5 (Same as Alarm Recording Picture Grade shown above)
	AL★ #1	Pre-Alarm Recording setting ★ : 0 ~ 3 0 : OFF 1 : SHORT 2 : MEDIUM 3 : LONG (1 ~ 3 available in STOP mode)	RC #2 EX #2
	AL? #1	Acquire information on Pre-Alarm Recording setting	RC #2 AL★ #2 ★ : 0 ~ 3 0 : OFF 1 : SHORT 2 : MEDIUM 3 : LONG
	ES? #1	Acquire information on ESTD (estimated) TIME	RC #2 ES★★★(1),★★(2),★★(3) #2 ★★★(1) : Day ★★(2) : Hour ★★(3) : Minute
A-REC/ M-DET	MS★ #1	MOTION DETECTION setting ★ : 0 ~ 1 0 : OFF 1 : ON	RC #2 EX #2
	MS? #1	Acquire information on MOTION DETECTION setting	RC #2 MS★ #2 ★ : 0 ~ 1 0 : OFF 1 : ON
REAR TERMINAL	MO★ #1	MODE OUT setting ★ : 0 ~ 3 0 : REC 1 : PLAY 2 : POWER 3 : REMAIN	RC #2 EX #2
	RM #1	Acquire information on MODE OUT setting	RC #2 MR★ #2 ★ : 0 ~ 3 0 : REC 1 : PLAY 2 : POWER 3 : REMAIN
	CL★(1),★★(2) #1	CALL OUT setting ★(1) : 0 ~ 1 0 : HDD 1 : ARCHIVE ★★(2) : 00 ~ 11 00 : NONE 01 : FULL 02 : 2% 03 : 4% 04 : 6% 05 : 8% 06 : 10% 07 : 15% 08 : 20% 09 : 30% 10 : 40% 11 : 50%	RC #2 EX #2
	CL?★ #1	Acquire information on CALL OUT setting ★(1) : 0 ~ 1 0 : HDD 1 : ARCHIVE	RC #2 CL★(1),★★(2) #2 ★(1) : 0 ~ 1 0 : HDD 1 : ARCHIVE ★★(2) : 00 ~ 11 00 : NONE 01 : FULL 02 : 2% 03 : 4% 04 : 6% 05 : 8% 06 : 10% 07 : 15% 08 : 20% 09 : 30% 10 : 40% 11 : 50%
	RT★(1),★★(2) #1	CAPACITY REMAIN setting ★(1) : 0 ~ 2 0 : HDD 1 : ARC 2 : NONE ★★(2) : 02, 04, 06, 08, 10, 15, 20, 30, 40, 50(%) (When ★(1) is set to 2, it is not necessary to input ★★(2))	RC #2 EX #2
	RT? #1	Acquire information on CAPACITY REMAIN setting	RC #2 RT★(1),★★(2) #2 ★(1) : 0 ~ 2 0 : HDD 1 : ARC 2 : NONE ★★(2) : 02, 04, 06, 08, 10, 15, 20, 30, 40, 50(%) (When ★(1) is set to 2, ★★(2) is not output)

	Commands	Functions	Status, when normal execute
REAR TERMINAL	BZ✱ #1	BUZZER setting ✱(1) : 0 ~ 3 0 : KEY 1 : WRNG 2 : REMAIN 3 : OFF	RC #2 EX #2
	FS2 #1	Acquire information on BUZZER setting	RC #2 BZ✱ #2 ✱(1) : 0 ~ 3 0 : KEY 1 : WRNG 2 : REMAIN 3 : OFF
SERVICE	PN #1	Acquire current power failure number	RC #2 PN✱✱ #2 ✱✱ : power failure number (01 ~ 50, 00) (00 is shown when no power failure occurs)
	PT✱✱ #1	Acquire information on power failure list ✱✱ : power failure number (01 ~ 50)	RC #2 PT✱✱(1),✱✱(2),✱✱(3),✱✱(4),✱✱(5) #2 ✱✱(1) : Day ✱✱(2) : Month ✱✱(3) : Year ✱✱(4) : Hour ✱✱(5) : Minute (ER08 #2 is output when no power failure occurs)
	PC #1	Clearing POWER FAILURE list	RC #2 EX #2
	MI #1	Initialization of the menu (available in MAIN MENU) (Refer to “Initializing menus” for all initialized menu. RS-232C setting menu is also initialized when executed.)	RC #2 EX #2
	HM? #1	Acquire information on MAIN HDD ELAPSED TIME setting	RC #2 HM✱✱✱✱✱✱ #2 ✱✱✱✱✱✱ : elapsed time (000000 ~ 999999)
	DH? #1	Acquire information on COPY ELAPSED TIME setting	RC #2 DH✱✱✱✱✱✱ #2 ✱✱✱✱✱✱ : COPY elapsed time (000000 ~ 999999)
	AM? #1	Acquire information on ARCHIVE ELAPSED TIME setting	RC #2 AM✱✱✱✱✱✱ #2 ✱✱✱✱✱✱ : ARCHIVE elapsed time (000000 ~ 999999)
	BR #1	ARCHIVE POINT RESET setting	RC #2 EX #2
	CB #1	Stop the coping, restoring	RC #2 EX #2
INITIAL SET UP	SD✱✱(1),✱✱(2),✱✱(3) #1	Current date setting ✱✱(1) : Day ✱✱(2) : Month ✱✱(3) : Year (00 ~ 30)	RC #2 EX #2
	DT #1	Acquire information on current date setting	RC #2 TD✱✱(1),✱✱(2),✱✱(3),✱(4) #2 ✱✱(1) : Day ✱✱(2) : Month ✱✱(3) : Year (00 ~ 30) ✱(4) : Day of the week (0 ~ 6) 0 : SUN ~ 6 : SAT
	SC✱✱(1),✱✱(2) #1	Current time setting ✱✱(1) : Hour ✱✱(2) : Minute	RC #2 EX #2
	TM #1	Acquire information on current time setting	RC #2 TI✱✱(1),✱✱(2),✱✱(3) #2 ✱✱(1) : Hour ✱✱(2) : Minute ✱✱(3) : Second
	DF✱ #1	HDD FULL setting ✱ : 0 ~ 3 0 : STOP 1 : REC•STANDBY 2 : REPEAT 3 : ALARM•PROT	RC #2 EX #2
	FS0 #1	Acquire information on HDD FULL setting	RC #2 TE✱ #2 ✱(1) : 0 ~ 3 0 : STOP 1 : REC•STANDBY 2 : REPEAT 3 : ALARM•PROT
	DE✱ #1	AUTO EJECT setting ✱ : 0 ~ 1 0 : ON 1 : OFF	RC #2 EX #2
	DE? #1	Acquire information on AUTO EJECT setting	RC #2 DE✱ #2 ✱ : 0 ~ 1 0 : ON 1 : OFF
	RD✱ #1	ARCHIVE DATA setting ✱ : 1 ~ 2 1 : ALL 2 : ALARM	RC #2 EX #2
	RD? #1	Acquire information on ARCHIVE DATA setting	RC #2 RD✱ #2 ✱ : 1 ~ 2 1 : ALL 2 : ALARM
	HP✱ #1	HDD PB REPEAT setting ✱ : 0 ~ 1 0 : STOP 1 : REPEAT	RC #2 EX #2
	HP? #1	Acquire information on HDD PB REPEAT setting	RC #2 HP✱ #2 ✱ : 0 ~ 1 0 : STOP 1 : REPEAT
	AW✱ #1	ARCHIVE OVERWRITE setting ✱ : 0 ~ 1 0 : OFF 1 : ON	RC #2 EX #2
	AW? #1	Acquire information on ARCHIVE OVERWRITE setting	RC #2 AW✱ #2 ✱ : 0 ~ 1 0 : OFF 1 : ON
	MR✱ #1	FIFO/OVERWRITE MODE setting ✱ : 0 ~ 1 0 : OFF 1 : ON	RC #2 EX #2 (Only activated when the HDD is connected to ID4.)
	MR? #1	Acquuire informatoin on FIFO/OVERWRITE MODE setting	RC #2 MR✱ #2 ✱ : 0 ~ 1 0 : OFF 1 : ON (Only activated when the HDD is connected to ID4.)

	Commands	Functions	Status, when normal execute
INFORMATION	HE? #1	Acquire information on RECORDED PERIOD of HDD	RC #2 HE★★(1),★★(2),★★(3),★★(4),★★(5),★★(6), ★★(7),★★(8),★★(9),★★(10),★★(11),★★(12) #2 ★★(1) : Start Day ★★(2) : Start Month ★★(3) : Start Year ★★(4) : Start Hour ★★(5) : Start Minute ★★(6) : Start Second ★★(7) : End Day ★★(8) : End Month ★★(9) : End Year ★★(10) : End Hour ★★(11) : End Minute ★★(12) : End Second When no recording : RC #2 HE FF, FF, FF, FF, FF, FF, FF, FF, FF, FF, FF, FF #2
	AE? #1	Acquire information on RECORDED PERIOD of COPY DEVICE	RC #2 AE★★(1),★★(2),★★(3),★★(4),★★(5),★★(6), ★★(7),★★(8),★★(9),★★(10),★★(11),★★(12) #2 ★★(1) : Start Day ★★(2) : Start Month ★★(3) : Start Year ★★(4) : Start Hour ★★(5) : Start Minute ★★(6) : Start Second ★★(7) : End Day ★★(8) : End Month ★★(9) : End Year ★★(10) : End Hour ★★(11) : End Minute ★★(12) : End Second When no recording : RC #2 AE FF, FF, FF, FF, FF, FF, FF, FF, FF, FF, FF, FF #2
	RJ? #1	Acquire information on RECORDED PERIOD of ARCHIVE DEVICE	RC #2 RJ★★(1),★★(2),★★(3),★★(4),★★(5),★★(6), ★★(7),★★(8),★★(9),★★(10),★★(11),★★(12) #2 ★★(1) : Start Day ★★(2) : Start Month ★★(3) : Start Year ★★(4) : Start Hour ★★(5) : Start Minute ★★(6) : Start Second ★★(7) : End Day ★★(8) : End Month ★★(9) : End Year ★★(10) : End Hour ★★(11) : End Minute ★★(12) : End Second When no recording : RC #2 RJ FF, FF, FF, FF, FF, FF, FF, FF, FF, FF, FF, FF #2
	DV? #1	Acquire information on ID number of CONNECTED SCSI DEVICE	RC #2 DV★(1),★★★(2),★(3),★★★(4),★(5),★★★(6),★(7), ★★★(8),★(9),★★★(10),★(11),★★★(12) #2 ID0 ★(1) : Type of DEVICE ★★★(2) : Capacity ID1 ★(3) : Type of DEVICE ★★★(4) : Capacity ID2 ★(5) : Type of DEVICE ★★★(6) : Capacity ID3 ★(7) : Type of DEVICE ★★★(8) : Capacity ID4 ★(9) : Type of DEVICE ★★★(10) : Capacity ID5 ★(11) : Type of DEVICE ★★★(12) : Capacity ★(1),★(3),★(5),★(7),★(9),★(11) : 0 ~ 3 0 : NONE 1 : HDD 2 : RDD 3 : DDS ★★★(2),★★★(4),★★★(6),★★★(8),★★★(10),★★★(12) : 000 ~ 103 (GB) (Capacity shown next to unused ID number, and Capacity of archive device and copying device is output as FFF.)
COPY SELECTION	DB★(1),★★(2),★★(3), ★★(4),★★(5),★★(6), ★★(7),★★(8),★★(9), ★★(10),★★(11),★★(12), ★★(13) #1	Setting and executing COPY/RESTORE ★(1) : 0 ~ 3 0 : HDD→COPY (COPY, OVERWRITE) 1 : HDD→COPY (COPY, ADD) 2 : ARC→HDD (RESTORE, OVERWRITE) 3 : COPY→HDD (RESTORE, OVERWRITE) ★★(2) : Start Day ★★(3) : Start Month ★★(4) : Start Year ★★(5) : Start Hour ★★(6) : Start Minute ★★(7) : Start Second ★★(8) : End Day ★★(9) : End Month ★★(10) : End Year ★★(11) : End Hour ★★(12) : End Minute ★★(13) : End Second <Copy up to the maximum capacity of media> 31, 12, 00, 10, 10, 10 (Start time) FF, FF, FF, FF, FF, FF (End time) <Copy new data to media up to its maximum capacity> FF, FF, FF, FF, FF, F1 (Start time) FF, FF, FF, FF, FF, F1 (End time)	RC #2 EX #2

	Commands	Functions	Status, when normal execute
SEARCH SELECTION	TF★★(1),★★(2),★★(3), ★★(4),★★(5),★★(6) #1	TIME DATE SEARCH setting ★★(1) : Day ★★(2) : Month ★★(3) : Year ★★(4) : Hour ★★(5) : Minute ★★(6) : Second	RC #2 EX2 #2 (given when search is completed)
	IF★★★ #1	INDEX SEARCH (forward) setting ★★★ : 001 ~ 099	RC #2 EX1 #2 (given when search is completed)
	IR★★★ #1	INDEX SEARCH (reverse) setting ★★★ : 001 ~ 099	RC #2 EX1 #2 (given when search is completed)
	SF #1	SKIP SEARCH (forward)	RC #2 EX #2
	SR #1	SKIP SEARCH (reverse)	RC #2 EX #2
	AN #1	Acquire a current alarm recording number	RC #2 AN★★★★ #2 ★★★★ : 0001 ~ 9999
	AT★★★ #1	Acquire information on selected alarm recording ★★★ : ★★★ th alarm information on alarm list (001 ~ 800)	RC #2 AT★★(1),★★(2),★★(3),★★(4),★★(5),★★(6),★★(7) #2 ★★(1) : Day ★★(2) : Month ★★(3) : Year ★★(4) : Hour ★★(5) : Minute ★★(6) : Second ★★(7) : Camera number (01 ~ 16)
	AQ? #1	Acquire a current alarm recording registration number	RC #2 AQ★★★ #2 ★★★ : 001 ~ 800
	AO?★★★ #1	Acquire alarm number that selected alarm recording registration number ★★★ : 001 ~ 800	RC #2 AO★★★★ #2 ★★★★ : 0001 ~ 9999
	AB★★★ #1	Searching alarm list that selected alarm recording registration number ★★★ : 001 ~ 800	RC #2 EX5 #2
	AF★★★★ #1	Searching selected alarm recording number ★★★★ : 0001 ~ 9999	RC #2 EX5 #2
	JS #1	Jump to start-point	RC #2 EX6 #2
OTHERS	WN #1	Acquire warning status	RC #2 WN★★,★★,.....,★★ #2 ★★ : 00 ~ 11 00 : NONE 01 : HDD FULL 02 : HDD NEAR END 03 : NO SIGNAL 04 : COPY CHECK MEDIA/BACKUP CHECK MEDIA/ RESTORE CHECK MEDIA 05 : COPY SIZE ERROR/BACKUP SIZE ERROR/ RESTORE SIZE ERROR 06 : ARCHIVE FULL 07 : ARCHIVE NEAR END 08 : COPY OVERTAKE ERROR/ BACKUP OVERTAKE ERROR 09 : COPY NEAR OVERTAKE/ BACKUP NEAR OVERTAKE 10 : REC SYSTEM ERROR/COPY SYSTEM ERROR/ BACKUP SYSTEM ERROR/ RESTORE SYSTEM ERROR/SYSTEM ERROR 11 : COPY R/W ERROR/BACKUP R/W ERROR/ RESTORE R/W ERROR
	CA0 #1	Clearing warning	RC #2 EX #2
	VS? #1	Acquire information on status of video input (During recording and when pressed the WARNING RESET button to reset the warning, replied status code "VS0".)	RC #2 VS★ #2 ★ : 0 ~ 1 0 : with Video Signal 1 : without Video Signal
	VN? #1	Acquire information on CH without video signal (During recording and when pressed the WARNING RESET button to reset the warning, replied only status code "VN".)	RC #2 VN★★(1),★★(2),★★(3),★★(4),★★(5),★★(6),★★(7), ★★(8),★★(9),★★(10),★★(11),★★(12),★★(13),★★(14),★★(15), ★★(16) #2 ★★ : CH without Video Signal (maximum of 16CH) (ER08 #2 is output when CH without Video Signal)

	Commands	Functions	Status, when normal execute
OTHERS	SS #1 (MAIN DEVICE•HDD)	Acquire the current status	RC #2 ST00 #2 Power off RC #2 ST01 #2 during set up RC #2 ST02 #2 Power on/standby mode RC #2 ST03 #2 PB•Reverse speed search mode RC #2 ST04 #2 PB•Forward speed search mode RC #2 ST05 #2 PB•Playback mode RC #2 ST06 #2 PB•Pause mode RC #2 ST09 #2 RPB•Playback mode RC #2 ST10 #2 RPB•Pause mode RC #2 ST11 #2 REC•Recording mode RC #2 ST12 #2 REC•Pause mode RC #2 ST13 #2 A-REC (during standby)•Recording mode RC #2 ST15 #2 A-REC (during recording)•Recording mode RC #2 ST17 #2 Time date search RC #2 ST19 #2 Index search (FF) RC #2 ST20 #2 Index search (REW) RC #2 ST21 #2 Skip search (FF) RC #2 ST22 #2 Skip search (REW) RC #2 ST25 #2 Character search (FF) RC #2 ST26 #2 Character search (REW) RC #2 ST27 #2 Alarm list search RC #2 ST28 #2 Jump to start point RC #2 ST29 #2 Timer REC RC #2 ST30 #2 Reserve of Timer REC RC #2 ST31 #2 Timer reserve error RC #2 ST33 #2 Clearing device RC #2 ST36 #2 Restoring RC #2 ST47 #2 PRE-ALARM Recording•Standby mode
	SS1? #1 (ARCHIVE DEVICE)	Acquire the current status	RC #2 SS1,00 #2 Power off RC #2 SS1,01 #2 during set up RC #2 SS1,02 #2 Power on/standby mode RC #2 SS1,03 #2 PB•Reverse speed search mode (RDD only) RC #2 SS1,04 #2 PB•Forward speed search mode (RDD only) RC #2 SS1,05 #2 PB•Playback mode RC #2 SS1,06 #2 PB•Pause mode RC #2 SS1,09 #2 RPB•Playback mode RC #2 SS1,10 #2 RPB•Pause mode RC #2 SS1,17 #2 Time date search RC #2 SS1,19 #2 Index search (FF) RC #2 SS1,20 #2 Index search (REW) RC #2 SS1,21 #2 Skip search (FF) (RDD only) RC #2 SS1,22 #2 Skip search (REW) (RDD only) RC #2 SS1,25 #2 Character search (FF) RC #2 SS1,26 #2 Character search (REW) RC #2 SS1,27 #2 Alarm list search RC #2 ST1,28 #2 Jump to start point RC #2 SS1,29 #2 Timer REC RC #2 SS1,30 #2 Reserve of Timer REC RC #2 SS1,31 #2 Timer reserve error RC #2 SS1,33 #2 Initializing device RC #2 SS1,34 #2 Archiving RC #2 SS1,36 #2 Restoring RC #2 SS1,46 #2 Rewinding (DDS only)

	Commands	Functions	Status, when normal execute
OTHERS	SS2? #1 (Copy device)	Acquire the current status	RC #2 SS2,00 #2 Power off RC #2 SS2,01 #2 during set up RC #2 SS2,02 #2 Power on/standby mode RC #2 SS2,03 #2 PB•Reverse speed search mode (RDD only) RC #2 SS2,04 #2 PB•Forward speed search mode (RDD only) RC #2 SS2,05 #2 PB•Playback mode RC #2 SS2,06 #2 PB•Pause mode RC #2 SS2,09 #2 RPB•Playback mode RC #2 SS2,10 #2 RPB•Pause mode RC #2 SS2,17 #2 Time date search RC #2 SS2,19 #2 Index search (FF) RC #2 SS2,20 #2 Index search (REW) RC #2 SS2,21 #2 Skip search (FF) (RDD only) RC #2 SS2,22 #2 Skip search (REW) (RDD only) RC #2 SS2,25 #2 Character search (FF) RC #2 SS2,26 #2 Character search (REW) RC #2 SS2,27 #2 Alarm search RC #2 ST2,28 #2 Jump to start point RC #2 SS2,29 #2 Timer REC RC #2 SS2,30 #2 Reserve of Timer REC RC #2 SS2,31 #2 Timer reserve error RC #2 SS2,33 #2 Initializing media of device RC #2 SS2,34 #2 copying RC #2 SS2,36 #2 Restoring RC #2 SS2,46 #2 Rewinding (DDS only)
	DC* #1	Operation on DEVICE CHECK menu * : 0 ~ 1 0 : PWR-OFF 1 : CONFIG/INITIALIZE	RC #2 EX #2
	BT** #1	Boot-up delay setting ** : Second (00 ~ 99)	RC #2 EX #2
	BT? #1	Acquire information on boot-up delay setting	RC #2 BT** #2 ** : Second (00 ~ 99)

SPECIAL FUNCTION MENU

	Commands	Functions	Status, when normal execute
SPECIAL FUNCTION MENU	DI* #1	Initializing the disk * : 0 ~ 2 0 : HDD 1 : ARCHIVE 2 : COPY	RC #2 EX #2
	WN? #1	Acquire warning status for serviceman	RC #2 WN**,**,.....,** #2 ** : 00 ~ 16 (MAX) 00 : NONE 01 : OVERTAKE ERROR 02 : HDD R/W ERROR 03 : DEVICE R/W ERROR 06 : NO SIGNAL 07 : SUB MICRO COMPUTER HANG UP 08 : TEMPERATURE SENSOR ERROR 09 : SYSTEM ERROR 11 : STOPPING THE FUN ERROR 12 : SYSTEM RE-STARAT 13 : FLASH MEMORY ERROR 14 : REC SYSTEM ERROR

Table of Error Code

Error code	Meaning of error
ER00 #2	No power supply
ER01 #2	–
ER02 #2	–
ER03 #2	–
ER04 #2	–
ER05 #2	WARNING ERROR
ER06 #2	Present time or Timer program has not been set
ER07 #2	Alarm recording underway
ER08 #2	Unfeasible (NAK)
ER09 #2	–
ER10 #2	Incorrect command
ER11 #2	Incorrect parameter
ER12 #2	Overflow on receiver
ER13 #2	Data was not received
ER14 #2	–
ER15 #2	Data clearing underway (Command not accepted)
ER16 #2	PASSWORD ERROR
ER17 #2	PASSWORD LOCK is set

Table of Status Code

Status code	Meaning of status
CE** #2	given when error occurred during copy/restore ** : Error code (02 ~ 04) 02 : Copy/restore size error 03 : Copy/archive/restore R/W error 04 : Copy/restore media error
DC* #2	given when DEVICE CHECK menu appears * : 0 ~ 2 0 : Select PWR-OFF, CONFIG 1 : Select PWR-OFF, INITIALIZE 2 : Only PWR-OFF

■ Character Search

Characters can be added to both visuals and audio using a PC when the unit is connected to a PC via the RS-232C interface. These characters will appear on screen during playback. (There is also the possibility that the characters will not be displayed.) In addition, searches of images incorporating these characters, a process called Character Search, can also be performed. Searches are carried out by designating the characters associated with a particular image.

♦ Character Search commands

Commands	Functions	Status,when normal execute
CR0 #1	Do not display characters on-screen (Playback only)	RC #2 EX #2
CR1 #1	Display characters on-screen (Playback only)	RC #2 EX #2
CR? #1	Acquire information on character display settings	RC #2 CR✱ #2 (✱ : 0-1) 0 : OFF 1 : ON
CM? #1	Acquire information on recalled display settings (Playback only)	RC #2 CM✱✱,Text data #2 ✱✱ : Character count (01-48) (Text data up to 48 characters)
CC #1	Clear character display	RC #2 EX #2
CW✱✱, Text data (Up to 48 characters) #1	Create sets of written characters ✱✱(1) : Character count (01-48)	RC #2 EX #2
CM✱✱ #1	Record character sets ✱✱ : Camera number 01-16	RC #2 EX #2
LF✱✱, Text data (Up to 48 characters) #1	Forward character search (During stop, pause, playback) ✱✱ : Character count (01-48) Abridged search by ✻ code Searches can be made using only a specified number of characters found at the head of recorded comments.	RC #2 EX4 #2 (Reply at the completion of search)
LR✱✱, Text data (Up to 48 characters) #1	Reverse character search (During stop, pause, playback) ✱✱ : Character count (01-48) Abridged search by ✻ code Searches can be made using only a specified number of characters found at the head of recorded comments.	RC #2 EX4 #2 (Reply at the completion of search)

♦ Characters can be used

Alphabet	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
ASCII code	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90

Character	#2	%	(	)	-	.	/	:	<	>
ASCII code	32	37	40	41	45	46	47	58	60	62

Number	0	1	2	3	4	5	6	7	8	9
ASCII code	48	49	50	51	52	53	54	55	56	57

#2: a space

♦ Sample operation

1) Record characters “ABCDEF” and images simultaneously at the camera CH number ⑤.
(On the RS-232C settings screen, set DELIMITER to “CR”.)

The following are the two steps required for recording characters:
① Set the character (or characters string) to be recorded;
② Record the selected character(s).
By using the CM command, characters which have been set once can be recorded any number of times. To record a different character set, use the CW command.

Command from personal computer	Replied status code from unit to a personal computer	Meaning
CW06,ABCDEF CR		Sending a command for setting "ABCDEF" .
	RC CR EX CR	The unit received a command and executed.
CM05 CR		Sending a command to record set characters at the camera CH number ⑤ (it is able to execute while recording).
	RC CR EX CR	The unit executed a command.

CR means a carriage return code (0DH).

- Set the CH. TITLE setting to “NONE” to display characters during segmented display mode.

2) Search for the scene associated with the recorded character set “ABCDEF”. (On the RS-232C settings screen, set DELIMITER to “CR”.)

Command from personal computer	Replied status code from unit to a personal computer	Meaning
CR1 CR		Display characters on-screen (Playback only).
	RC CR EX CR	The unit received a command and executed.
LF06,ABCDEF CR		Sending a command for serching "ABCDEF" by character search in a direction of the time being.
	RC CR EX4 CR	The unit received a command and executed.

CR means a carriage return code (0DH).

3) Search for the scene associated with the recorded character set “ABCDEFG”. (On the RS-232C settings screen, set DELIMITER to “CR”.)
By using abridged search by ✻ code, search can be made using only a specified number of characters found at the head of recorded characters.

For the recorded characters “ABCDEFG” ,searches can be made using any of the following patterns specified for number of character data.
Example of commands : LF02,A✻ / LF03,AB✻ / LF04,ABC✻ / LF05,ABCD✻ / LF06,ABCDE✻ / LF07,ABCDEF✻

Command from personal computer	Replied status code from unit to a personal computer	Meaning
CR1 CR		Display characters on-screen (Playback only).
	RC CR EX CR	The unit received a command and executed.
LF04,ABC✻ CR		Sending a command for serching "ABC✻" by abridged search by ✻ code in a direction of the time being.
	RC CR EX4 CR	The unit received a command and executed.

CR means a carriage return code (0DH).

- Character searches can only be performed during stop, pause, and playback modes.
- The unit will fast forward or rewind until it finds the character string, then shift into still frame mode.
- If the unit does not find the character string, it will stop automatically.
- When there are multiple instances of the same character string, repeat character search if the retrieved image is not the desired image.
- Character searches may be time-consuming as the process involves searching through all the data.
- Forward searching is the only option available when using a DDS device for playback.

MITSUBISHI

DIGITALER REKORDER
RS-232 PROTOKOLL

DEUTSCH

MODELL
DX-TL1600EM

■ RS-232C einstellen

Dieser Anschluß kann für Fernsteuerung und zur Aufzeichnung zusätzlicher Informationen verwendet werden, wenn das Hauptgerät an einen Computer angeschlossen ist.

♦ Übertragungsgeschwindigkeit

Beispiel: Übertragungsgeschwindigkeit auf 4800 bps einstellen.

1. Drücken Sie die Taste SET UP, um die Anzeige <HAUPT-MENÜ> aufzurufen.

2. Bringen Sie den Cursor mit dem JOG-Rad zur Option RS-232 / TCP/IP EINST. und drehen Sie dann das SHUTTLE-Rad nach rechts.

• Das Menü <RS-232 / TCP/IP EINST.> wird jetzt angezeigt.

```
<RS-232 / TCP/IP EINST.>
▸RS-232C-EINSTELLUNG
 TCP/IP-EINSTELLUNG
```

3. Vergewissern Sie sich, daß der Cursor bei der Option RS-232C-EINSTELLUNG steht. Drehen Sie das SHUTTLE-Rad nach rechts.

• Das Menü <RS-232C-EINSTELLUNG> wird jetzt angezeigt.

```
<RS-232C-EINSTELUNG>
▸ÜBERTRAGUNTSRATE    1200
 DATENBIT-LÄNGE      8BIT
 PARITÄTSBIT         KEINS
 STOPPBIT-LÄNGE      1BIT
 PROTOKOLLE            CR
```

4. Vergewissern Sie sich, daß der Cursor bei der Option ÜBERTRAGUNTSRATE steht. Drehen Sie das SHUTTLE-Rad nach rechts, bis der Parameter anfängt zu blinken.

```
<RS-232C-EINSTELUNG>
▸ÜBERTRAGUNTSRATE    1200
 DATENBIT-LÄNGE      8BIT
 PARITÄTSBIT         KEINS
 STOPPBIT-LÄNGE      1BIT
 PROTOKOLLE            CR
```

5. Wählen Sie mit dem JOG-Rad den Wert „4800“ aus und drehen Sie dann das SHUTTLE-Rad nach rechts, um die Einstellung einzugeben.

```
<RS-232C-EINSTELUNG>
▸ÜBERTRAGUNTSRATE    4800
 DATENBIT-LÄNGE      8BIT
 PARITÄTSBIT         KEINS
 STOPPBIT-LÄNGE      1BIT
 PROTOKOLLE            CR
```

6. Drücken Sie die Taste SET UP.

• Das Menü <RS-232C-EINSTELLUNG> wird jetzt angezeigt.

■ TCP / IP einstellen

Hier kann auf die IP-Adresse, die Einstellung der Hilfsnetzmaske und die zur Bezeichnung des angeschlossenen Rekorders verwendete MAC-Adresse Bezug genommen werden (siehe Seite 8).

➡ Drücken Sie die Taste COMMUNICATION an der Vorderseite dieses Gerätes, um die TCP/IP-Kommunikationsfunktionzu aktivieren.

1. Drücken Sie die Taste SET UP, um die Anzeige <HAUPT-MENÜ> aufzurufen.

2. Bringen Sie den Cursor mit dem JOG-Rad zur Option RS-232 / TCP/IP EINST. und drehen Sie dann das SHUTTLE-Rad nach rechts.

• Das Menü <RS-232 / TCP/IP EINST.> wird jetzt angezeigt.

```
<RS-232 / TCP/IP EINST.>
▸RS-232C-EINSTELLUNG
 TCP/IP-EINSTELLUNG
```

3. Bringen Sie den Cursor mit dem JOG-Rad zur Option TCP/IP-EINSTELLUNG und drehen Sie dann das SHUTTLE-Rad nach rechts.

• Das Menü <TCP/IP-EINSTELLUNG> wird jetzt angezeigt.

```
<TCP/IP-EINSTELLUNG>


▸EIGENE IP-ADRESSE
        000.000.000.000
 SUB-NETZ-MASKE
        000.000.000.000
<MAC-ADDRESSE>
        08-00-70-2E-3F-FF
```

4. Vergewissern Sie sich, daß der Cursor bei der Option EIGENE IP-ADRESSE steht. Drehen Sie das SHUTTLE-Rad nach rechts, bis der Parameter anfängt zu blinken.

```
<TCP/IP-EINSTELLUNG>


▸EIGENE IP-ADRESSE
        000.000.000.000
 SUB-NETZ-MASKE
        000.000.000.000
<MAC-ADDRESSE>
        08-00-70-2E-3F-FF
```

5. Drehen Sie den JOG-Ring, um EIGENE IP-ADRESSE einzugeben, und drehen Sie dann den SHUTTLE-Ring nach rechts, um die Einstellung zu beenden.

```
<TCP/IP-EINSTELLUNG>


▸EIGENE IP-ADRESSE
        192.168.001.100
 SUB-NETZ-MASKE
        255.255.255.000
<MAC-ADDRESSE>
        08-00-70-2E-3F-FF
```

6. Drücken Sie die Taste SET UP.

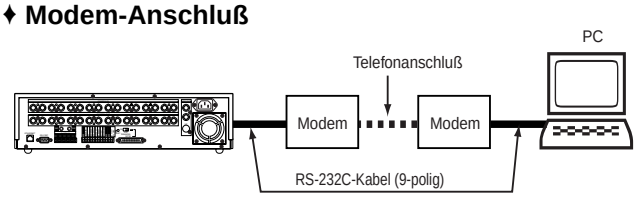
• Das Menü <TCP/IP-EINSTELLUNG> wird jetzt angezeigt.

■ PC-Anschluß einrichten

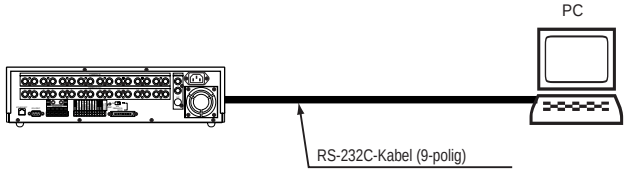
Wenn das Gerät über diese Schnittstelle an einen PC angeschlossen ist, kann es über den PC gesteuert und zusätzliche Informationen können aufgezeichnet werden.

➡ Verwenden Sie für den Anschluß dieses Gerätes mit der RS-232C-Schnittstelle bitte das gerade Kabel (9-polig). Die Option CTS sollte für die Einstellung „HOCH“ oder „AN“ konfiguriert werden. Für detaillierte Instruktionen konsultieren Sie bitte das Handbuch des Modem-Herstellers.

♦ Modem-Anschluß

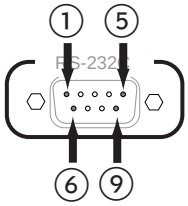


♦ Direktanschluß



➡ Verwenden Sie für die Verbindung vom Modem zum PC bitte das RS-232C-Verbindungskabel (9-polig). Die RS-232C-Verbindungskabel können von PC zu PC verschieden sein.

♦ RS-232C-Anschluß

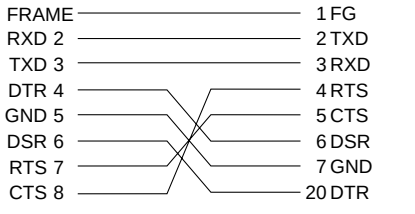


Nr. Pol	Bezeich-nung	Funktion	Nr. Pol	Bezeich-nung	Funktion
②	RXD	Daten empfangen	⑥	DSR	Betriebsbereitschaft
③	TXD	Übertragung Daten	⑦	RTS	Sendeteil einschalten
④	DTR	Endgerät betriebsbereit			
⑤	GND	Betriebserde	⑧	CTS	Sendebereitschaft

♦ RS-232C-Kabel

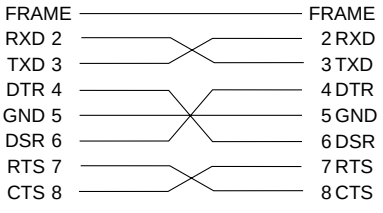
Verwenden Sie bitte das folgende RS-232C-Anschlußkabel, um das Gerät an einen PC anzuschließen.

1) Für PC-RS-232C-Schnittstelle vom Typ D-SUB 25-polig



Steckerbelegung

2) Für PC-RS-232C-Schnittstelle vom Typ D-SUB 9-polig



Steckerbelegung

♦ Übertragungssystem

Die Einstellungen können in RS-232C-EINSTELLUNG im Menü <RÜCK TERMINAL EINST.> vorgenommen werden. Nehmen Sie die notwendigen Einstellungen am Gerät und am Modem bzw. am PC vor. Detaillierte Informationen über die Einstellungen und die Übertragungsgeschwindigkeit finden Sie in der Abbildung.

Synchronisation	Menüname	Asynchronous
① Übertragungsgeschwindigkeit der gesendeten/ empfangenen Daten	ÜBERTAGUMTSRATE	1200/2400/4800/ 9600
② Bitlänge	DATENBIT--LÄNGE	8 BIT/7 BIT
③ Paritätsbit	PARITÄTSBIT	KEINS/UNGERADE/GERADE
④ Stoppbitlänge	STOPPBIT-LÄNGE	1 BIT/2 BIT
⑤ Zeilenvorschub	PROTOKOLLE	CR/CR-LF

Stellen Sie andere Funktionen werden am PC wie folgt ein (siehe unten).

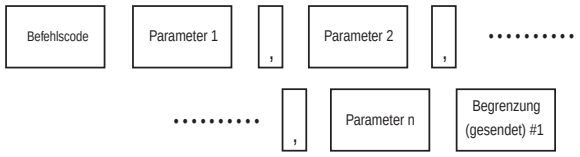
Synchronisation	Menüname
① X-Steuerung	nicht vorhanden
② S-Paramerter	nicht vorhanden
③ CS-RS-Handshake	vorhanden

➡ Bitte beachten Sie, daß die RS-232C-Schnittstelle (an der Rückseite des Gerätes) nicht funktioniert, wenn das Gerät im Kommunikationsmodus ist.

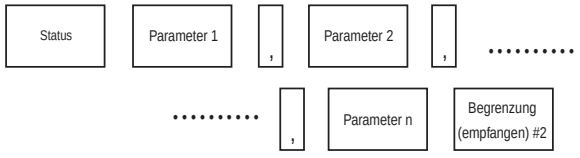
■ Befehlscode und Befehlsstatus

Der Betrieb und die Einstellung des Gerätes durch einen PC werden mit Hilfe von Befehls- und Fehlercodes durchgeführt.

1) Befehl: eine Anweisung von einem PC zum Digital-Rekorder



2) Befehl: eine Antwort vom Digital-Rekorder (auf dem PC angezeigt)



#1: Bei Einstellung im RS-232C-Einstellungsmenü von PROTOKOLLE auf „CR“ wird der Befehl Carriage Return code (0DH) eingegeben.
Bei Einstellung im RS-232C-Einstellungsmenü von PROTOKOLLE auf „CR-LF“ wird der Befehl Carriage Return code (0DH) und Linie★★★★ (0AH) eingegeben.

#2: Bei Einstellung im RS-232C-Einstellungsmenü von PROTOKOLLE auf „CR“ wird der Befehl Carriage Return code (0DH) ausgegeben.
Bei Einstellung im RS-232C-Einstellungsmenü von PROTOKOLLE auf „CR-LF“ wird der Befehl Carriage Return code (0DH) und Linie★★★★ (0AH) ausgegeben.

Beachten Sie bitte, daß die Befehle in Intervallen von 0.1 Sekunde gesendet werden.

♦ Beispiel einer Befehlssteuerung

Beispiel 1) Schalten Sie den Digital-Rekorder an. (wenn für PROTOKOLLE im RS-232C-Einstellungsmenü die Einstellung „CR“ gewählt wurde)

Befehl vom PC	Statuscode-Antwort vom Digital-Rekorder an den PC	Bedeutung
PW1 CR		Sendet den Befehl zum Anschalten des Digital-Rekorders.
	RC CR	Der Digital-Rekorder hat einen Befehl erhalten.
	EX CR	Der Digital-Rekorder hat einen Befehl erhalten und ausgeführt.

♦ Detaillierte Angaben

#1 : Wenn auf dem Einstellungsbildschirm der RS-232C-Schnittstelle für PROTOKOLLE die Option CR gewählt wird, wird der Befehl Wagenrücklauf (0DH) eingegeben (Eingang). Bei Auswahl der Einstellung CR-LF werden die Befehle Wagenrücklauf (0DH) und Zeilenvorschub (0AH) eingegeben (Eingang).

#2 : Wenn auf dem Einstellungsbildschirm der RS-232C-Schnittstelle für PROTOKOLLEº die Einstellung CR gewählt wird, wird das Ausgangssignal Wagenrücklauf (0DH) ausgesendet. Bei Auswahl der Einstellung CR-LF werden die Befehle Wagenrücklauf (0DH) und Zeilenvorschub (0AH) ausgegeben (Ausgang).

✱ : Steht für ein Zeichen oder eine Zahl.

Befehlscode (siehe Seite 67 - 78 Installations- und Bedienungshandbuch English.)

■ Zeichensuche

Wenn das Gerät über eine RS-232C-Schnittstelle an einen PC angeschlossen ist, ist es möglich, Bild- und Tondaten Zeichen zuzufügen. Diese Zeichen werden bei der Wiedergabe auf dem Bildschirm angezeigt. (Es besteht jedoch die Möglichkeit, daß diese Zeichen nicht angezeigt werden.) Darüber hinaus können Bilder, denen gewisse Zeichen zugefügt wurden, mit Hilfe der Funktion Zeichensuche ausfindig gemacht werden. Mit dieser Suchfunktion werden einem Bild zugefügte Zeichen gesucht.

♦ Befehle der Zeichensuche

Befehle	Funktion	Status bei normaler Ausführung
CR0 [#1]	Nicht auf dem Bildschirm angezeigt (nur bei Wiedergabe)	RC [#2] EX [#2]
CR1 [#1]	Auf dem Bildschirm angezeigt (nur bei Wiedergabe)	RC [#2] EX [#2]
CR? [#1]	Information über die Einstellung erhalten	RC [#2] CR✱ [#2] (✱ : 0-1) 0 : OFF 1 : ON
CM? [#1]	Erfassung von Informationen über die Einstellung der Zeichenanzeige (nur bei Wiedergabe)	RC [#2] CM✱✱,Text [#2] ✱✱ : Zeichenzähler (01-48) (Text bis zu 48 Zeichen)
CC [#1]	Zeichenanzeige löschen ✱✱ : Kameranummer 01 bis 16	RC [#2] EX [#2]
CW✱✱, Text data (bis zu 48 Zeichen) [#1]	Erzeugt geschriebene Zeichenfolgen ✱✱ (1) : Zeichenzähler (01-48)	RC [#2] EX [#2]
CM [#1]	Zeichnet Zeichenfolgen auf	RC [#2] EX [#2]
LF✱✱, Text data (bis zu 48 Zeichen) [#1]	Vorwärtszeichensuche (im Stop-, Pause- und Wiedergabemodus) ✱✱ : Zeichenzähler (01-48) Abgekürzte Suche durch ✻-Code Suche nur durch Verwendung einer festgelegten Anzahl von am Anfang des aufgezeichneten Kommentars zu findenden Zeichen ist möglich.	RC [#2] EX4 [#2] (Antwort nach Abschluß der Suche)
LR✱✱, Text data (bis zu 48 Zeichen) [#1]	Rückwärtszeichensuche (im Stop-, Pause- und Wiedergabemodus) ✱✱ : Zeichenzähler (01-48) Abgekürzte Suche durch ✻-Code Suche nur durch Verwendung einer festgelegten Anzahl von am Anfang des aufgezeichneten Kommentars zu findenden Zeichen ist möglich.	RC [#2] EX4 [#2] (Antwort nach Abschluß der Suche)

♦ Mögliche Zeichen

Buchstabe	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
ASCII-Code	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90

Zeichen	#1	%	(	)	-	.	/	:	<	>
ASCII-Code	32	37	40	41	45	46	47	58	60	62

Nummer	0	1	2	3	4	5	6	7	8	9
ASCII-Code	48	49	50	51	52	53	54	55	56	57

#1: ein Leerzeichen

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♦ Beispiel

1) Die Zeichen „ABCDEF“ und die Bilder gleichzeitig an der Kameranummer IN ⑤ aufzeichnen. (Wählen Sie für PROTOKOLLE die Einstellung „CR“ auf dem RS-232C-Einstellungsbildschirm.)
Die folgenden beiden Schritte sind für die Aufzeichnung von Zeichen notwendig:
① Geben Sie das Zeichen (oder die Zeichenfolge), die aufgezeichnet werden soll, ein;
② Zeichnen Sie die eingegebenen Zeichen auf.
Mit dem Befehl CM können Zeichen, die einmal eingegeben wurden, beliebige Male aufgezeichnet werden. Andere Zeichenfolgen können mit dem Befehl CW aufgezeichnet werden.

Befehl vom PC	Statuscode-Antwort vom Digital-Rekorder an den PC	Bedeutung
CW06,ABCDEF CR		Sendet Befehl für die Einstellung von „ABCDEF“.
	RC CR EX CR	Der Digital-Rekorder hat einen Befehl erhalten und ausgeführt.
CM CR		Der Befehl zum Aufzeichnen der eingestellten Zeichen wird zur Kameranummer IN ⑤ geschickt.(kann während der Aufzeichnung ausgeführt werden).
	RC CR EX CR	Der Digital-Rekorder hat einen Befehl ausgeführt.

CR steht für Carriage Return Code (ODH).

• Wählen Sie für die Option KAMERA-TITEL die Einstellung „KEINER“, um bei segmentierter Anzeige Zeichen anzuzeigen.

2) Suchen Sie die Szene, die mit der Zeichenfolge „ABCDEF“ gekennzeichnet wurde. (Wählen Sie für PROTOKOLLE im Menü RS-232C-EINSTELLUNG die Einstellung „CR“.)

Befehl vom PC	Statuscode-Antwort vom Digital-Rekorder an den PC	Bedeutung
CR1 CR		Auf dem Bildschirm angezeigt (nur bei Wiedergabe)
	RC CR EX CR	Der Digital-Rekorder hat einen Befehl erhalten und ausgeführt.
LF06,ABCDEF CR		Sendet einen Befehl für die Zeichensuche von „ABCDEF“.
	RC CR EX4 CR	Der Digital-Rekorder hat einen Befehl erhalten und ausgeführt.

CR steht für Wagenrücklauf (0DH).

3) Suche nach der Szene, die dem aufgezeichneten Zeichensatz „ABCDEFG“ zugeordnet ist. (Stellen Sie am RS-232C-Einstellungsbildschirm PROTOKOLLE auf „CR“.
Durch Verwendung der abgekürzten Suche mit dem ✻ -Code kann Suche unter Verwendung nur der festgelegten Anzahl von am Anfang der aufgezeichneten Zeichen durchgeführt werden.

Für die aufgezeichneten Zeichen „ABCDEFG“ kann Suche nach einem der folgenden Muster für die Nummer der Zeichendaten durchgeführt werden.
Befehlsbeispiele: LF02,A ✻ /LF03,AB ✻ /LF04,ABC ✻ / LF05,ABCD ✻ /LF06,ABCDE ✻ / LF07,ABCDEF ✻

Befehl vom PC	Statuscode-Antwort vom Digital-Rekorder an den PC	Bedeutung
CR1 CR		Auf dem Bildschirm angezeigt (nur bei Wiedergabe)
	RC CR EX CR	Der Digital-Rekorder hat einen Befehl erhalten und ausgeführt.
LF04,ABC ✻ CR		Senden eines Befehls für Suche nach „ABC ✻“ durch abgekürzte Suche mit ✻ -Code in der gegenwärtigen Richtung.
	RC CR EX4 CR	Der Digital-Rekorder hat einen Befehl erhalten und ausgeführt.

CR steht für Wagenrücklauf (0DH).

• Zeichensuchen können nur in den Betriebsmodi Stop, Pause und Wiedergabe durchgeführt werden.
• Das Gerät sucht die Zeichenfolge mit den Funktionen Schnellvorlauf/Schnellrücklauf und geht dann in den Standbildmodus über.
• Sollte die Zeichenfolge nicht gefunden werden, geht das Gerät automatisch in den Stop-Modus.
• Wenn die Zeichenfolge mehrfach vorkommen sollte, wiederholen Sie die Suche, bis das gewünschte Bild aufgerufen wird.
• Die Zeichensuche kann viel Zeit in Anspruch nehmen, da alle Daten durchsucht werden.
• Bei der Verwendung von DDS-Wiedergabegeräten ist nur die Vorwärtssuche möglich.